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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,278	10/31/2003	Timothy L. Hillstrom	10030466-1	1611

7590 01/13/2006

AGILENT TECHNOLOGIES, INC.
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EXAMINER	
TSAI, CAROL S W	

ART UNIT	PAPER NUMBER
2857	

DATE MAILED: 01/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/698,278	HILLSTROM, TIMOTHY L.	
	Examiner	Art Unit	
	Carol S. Tsai	2857	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 November 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Response to Arguments

2. In view of the "APPEAL BRIEF UNDER 37 C.F.R. 41.37" filed on November 7, 2005, PROSECUTION IS HEREBY REOPENED. The Office Action with the new ground(s) of rejection set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-15 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The claims 1-15 recite no clearly defined practical application of the claimed method or do not draw a conclusion as to a tangible result of configuring of a vector network analyzer (VNA) being directed toward a practical application. Additionally, the method claims do not fall into either of the "safe harbors" defined in the Guidelines for Computer-Implemented Inventions in that there is no manipulation of measured data representing physical objects or activities to achieve a practical application (pre-computer process activity) or the performance of independent physical acts (post-computer process activity). The examiner submits that the claimed method merely manipulates an abstract idea without limitation to a practical application.

Claims 1-15 recite signal analysis that is not tied to any physical structure for configuring said VNA and identifying discontinuities correlated to a VSWR lobe. The Examiner submits that the claimed method consists solely of the manipulation of an abstract idea is not concrete or tangible.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 5,977,779 to Bradley in view of U. S. Patent No. 5,408,690 to Ishikawa et al.

Bradley discloses a method of using a transmission line analyzer for coordinated Voltage Standing-Wave Ratio (SWR) and Time Domain Reflectometry (TDR) measurement, said

method comprising configuring said transmission line analyzer for identifying discontinuities correlated to Standing-Wave Ratio (SWR) lobe (see col. 1, lines 16-26).

Bradley does not disclose a Voltage Standing-Wave Ratio (VSWR).

Ishikawa et al. teach a Voltage Standing-Wave Ratio (VSWR) (see col. 3, lines 6-12).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Bradley's method to include a Voltage Standing-Wave Ratio (VSWR), as taught Ishikawa et al., in order to provide a SWR measuring apparatus capable of measuring a VSWR of a particular high frequency signal transmitted on a transmission line, with a precision higher than that of the conventional apparatus, without receiving any influence of an interference wave and independent of a phase of a reflected wave.

Allowable Subject Matter

6. Claims 2-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

7. Applicant's arguments filed November 7, 2005 have been fully considered but they are not persuasive.

Applicant argue that he can find no requirement of 35 U.S.C. § 101 that requires a claim recite a "clearly defined practical application". The Examiner disagrees with Applicant. "The claimed invention as a whole must accomplish a practical application. That is, it must produce a

"useful, concrete and tangible result." State Street, 149 F.3d at 1373, 47 USPQ2d at 1601-02. The purpose of this requirement is to limit patent protection to inventions that possess a certain level of "real world" value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research (Brenner v. Manson, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96); In re Ziegler, 992, F.2d 1197, 1200-03, 26 USPQ2d 1600, 1603-06 (Fed. Cir. 1993)). Accordingly, a complete disclosure should contain some indication of the practical application for the claimed invention, i.e., why the applicant believes the claimed invention is useful" clearly indicate that requirement of 35 U.S.C. § 101 that requires a claim recite a "clearly defined practical application".

""The Examiner also "submits that the claimed method merely manipulates an abstract idea without limitation to a practical application. "See Office Action, page 2, paragraph 3. Appellant respectfully traverses the Examiner's submission that the claimed method "merely manipulates an abstract idea without limitation to a practical application." While abstract ideas may not be patentable, the subject matter of claims 1-15 is a process that comprises using a vector network analyzer, which Appellant respectfully asserts is not abstract."" as described at page 7, lines 3-8 of Applicant's AEGUMENT is not persuasive. As set forth above in the 101 rejection, Claims 1-15 recite signal analysis that **is not tied to any physical structure for configuring said VNA and identifying discontinuities correlated to a VSWR lobe**. The Examiner submits that the claimed method consists solely of the manipulation of an abstract idea is not concrete or tangible. The combination of signal with a statutory physical structure may be statutory subject matter if a useful, concrete and tangible result is produced. In the instant invention, we see no claimed tangible physical structure; the signal is not tied to any physical

structure for configuring or identifying. The scope of the claims only show or indicate that signal may be used to direct to perform certain step. Nor do we see any useful, concrete and tangible result. See MPEP 2106 for examples of proper claim language when referring to computer-implemented inventions.)

Contact Information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carol S. W. Tsai whose telephone number is (571) 272-2224. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (571) 272-2216. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 886-217-9197 (toll-free).

cswt
January 8, 2006
Art Unit 2857

CAROL S.W. TSAI
PRIMARY EXAMINER